ADVANCEMENT OF TECHNOLOGY IN INDIAN BANKING SERVICES: CHALLENGES AHEAD

Karigoleshwar

Assistant Professor , Department of Commerce and Management , Govt. First Grade College Jewargi, Dist: Gulbarga.

Short Profile

Karigoleshwar is working as a Assistant Professor at Department of Commerce and Management in Govt. First Grade College Jewargi, Dist: Gulbarga.

ABSTRACT:

The economic reforms initiated by the Government of India roughly about a decade ago have changed the landscape of several sectors of the Indian economy. The Indian banking sector is no exception for that. This sector is going through major changes as a consequence of economic reforms and the advancement of the technology. The emerging competition has generated new expectations from the existing and the new customers. There is an urgent need to introduce new products. Existing products need to be delivered in an innovative and cost-effective way by taking full advantage of newly emerged technologies.

The Indian banking sector is faced with multiple and concurrent challenges such as increased competition, rising customer expectations, and diminishing customer loyalty, product positioning innovative delivery channels, cross-selling, etc in one way and in other way there are various innovations in banking sector such as ECS, RTGS, EFT, NEFT, ATM, retail banking, Debit &Credit cards, fund transfers, internet banking, telephone banking, mobile banking, and many more value added services due to the advancement and involvement of technology in the banking services. The present paper aims to highlight the challenges of IT enabled banking services. Further efforts have been made to suggest to make IT enabled banking more effective.

KEYWORDS

Information technology, banking services, banking challenges,

INTRODUCTION:

The banking sector in India has undergone significant transformation in the past few years. A conducive macro-economic environment, the landmark foreclosure law, falling interest rates, ample liquidity in the system, the fast spreading technological revolution and huge potential in the retail segment augur well for Indian banks. However, the numerous challenges faced by banks such as increasing competition, pressure on spreads and systemic changes to align with international standards have necessitate dare-evaluation of strategies and processes in order to remain competitive in this dynamic environment. The challenge is how to service mass-market customers profitably. It should be the business imperative to understand a customer's expectations and appetite for risk. The developments in the sector should improve the cost structures of the banks. The internet has become an accepted sales channel for financial services products.

Financial innovation in India is key to making growth inclusive by connecting hundreds of millions to the banking system, said panelists at the World Economic Forum's India Economic Summit. So in this context the researchers are intend to know the advancement of technology in the Indian banking services and the challenges which are faced by the banks to stay in the cut throat competitive environment surrounded market for the longer decades.

REVIEW OF LITERATURE:

Advances in technology are set to change the face of banking business. Technology has transformed the delivery channels by banks in retail banking. The study also explored the challenges that banking industry and its regulator face (Avasthi& Sharma 2000-01).[01] As an Integral part of the e-business, the e-banking industry has been growing at a rapid pace, to help banks cut costs, increase revenue, and become more convenient for customers (Halperin, 2001).[02] Empirical studies from the consumer side of e-banking have focused on the quality of customers on the utilization of current e-banking services (Hitt and Frei, 2002).[03]A recent research even investigated the impact of e-banking on building inter-firm relationships within 200 Australian banks and showed that an effective e-banking may enhance inter-firm relationships through improved traditional communications (Rao, 2004).[04] Examining the customer attitudes towards e-banking and concluding that online banking marketing will gain importance at a faster rate in the coming years (Kaynak and Harcar, 2005).[05]

A large number of different mobile phone devices and it is a big challenge for banks to offer mobile banking solution on any type of device. Some of these devices support J2ME and others support WAP browser or only SMS; presetting a serious challenge (Lyman et al. 2008).[06] Indian mobile banking users are specially concern with security issues like financial frauds, account misuse and user friendliness issue - difficulty in remembering the different codes for different types of transaction, application software installation & updation due to lack of standardization(Sharma and Singh 2009).[07] The private and foreign Internet banks have performed well in offering a wider range and more advanced services of Internet banking in comparison with public sector banks. (PoojaMalhotra, Balwinder Singh, 2010).[08]

PROBLEM STATEMENT:

The present study seeks to address a number of factors and unexplained occurrences in the banking industry in India due to the advancement and involvement of technology. The problems that the project will attempt to address how the banks can better understand their customers' changing needs and behaviors and then segment this market to effectively deliver services that meet their expectations. How the banks can respond to the rapid technological advancements that are threatening the relevance of the traditional banking delivery channels by keeping pace with technology up-gradations. How the banks can respond to this challenge to defend their share of wallet and profitability.

OBJECTIVES OF THE STUDY:

As per the prior studies conducted in the area of advancement of technology in banking services indicates that in the competitive era of technology based banking services which is the key to assess service quality in banking sector. Therefore the present study was conducted based on followings objectives;

To know about advancement of technology in banking services
To identify the impact of advancement of technology in banking services
To assesses the challenges of advancement of technology in banking services and suggestions to overcome from the challenges.

HYPOTHESES OF THE STUDY:

Based on review of literature and considering rational views of the experts in banking service following hypotheses were formulated;

H1: There is no significant relation between Age, Education, Occupation & Income of the customers and awareness of technology enabled banking services.
H2: There is no significant relation between Age, Education, Occupation & Income of the customers and operation of technology enabled banking services
H3: There is no significant relation between Age, Education, Occupation & Income of the customers and challenges of technology enabled banking services.

METHODOLOGY:

The researchers have used both primary and secondary data. The primary data have been collected from the respondents by executing well-structured questionnaire based the purposive sampling method. From both the banks (SBH, HDFC) 50 respondents' opinions have been taken in to consideration. The secondary has been collected from several articles, books, papers and from the internet through different sites and also from SBH and HDFC banks' websites. The study is limited only to SBH and HDFC banks in Gulbarga city and only include fifty (50) participating customers for each

bank.

TOOLS AND TECHNIQUES USED:

The data collected are properly classified, tabulated, analyzed and interpreted. The data were converted into percentages for the purpose of comparison and the relevant information is summarized in the form of appropriate table with suitable caption. The statistical tools like Percentage, Anova and Chi-Square tests are used to study about services provided by banks to their customers.

RESULTS AND DISCUSSION:

Demographic profiles of the respondents have been tested by using percentile method.
For testing the hypotheses, occupation of the customer has been considered as an important independent variable out of all the other independent variables which are there in the study. Because it is the occupation which will really matters for all kind of the transactions which dealt with the banker by the customers.

Table No 01. Demographic profile of the respondents:

Name of the Bank	SBI		AXIS		Name of the Bank	SBI		AXIS	
Age of the Respondents	No.	%	No.	%	Education of Respondents	No.	%	No.	%
19 – 25	07	14%	08	16%	Up-to SSLC	08	16%	07	14%
26 – 35	13	26%	20	40%	PUC	08	16%	12	24%
36 – 45	14	28%	17	34%	Graduate	09	18%	25	50%
46 and above	16	32%	05	10%	Post Graduate	25	50%	06	12%
Total	50	100%	50	100%	Total	50	100	50	100%
Occupation of Respondents	No.	%	No.	%	Income of Respondents	No.	%	No.	%
Employee	24	48%	10	20%	UP-to 05 Lakh	20	40%	08%	16%
Professional	07	14%	11	22%	06 to10 lakh	15	30%	11%	22%
Businessmen	14	28%	26	52%	11 to 11 lakh	09	18%	14%	28%
Others	05	10%	03	06%	15 lakh and above	06	12%	17%	34%
Total	50	100%	50	100%	Total	50	100%	50%	100%

Table 01 showed that, in terms of age group, 14% were below 25 years 26% of 25 to 35 years, 28% were 36 to 45 years and 32% were 46 and above years old out of 50 respondents in SBH. whereas it is 16% were below 25 years 40% of 25 to 35 years, 34% were 36 to 45 years and 10% were 46 and above years old out of 50 respondents in HDFC bank. Educational status of the respondents indicates that 16% of respondents were up to SSLC, 16% of PUC, 18% of graduate and 50% of post graduates in SBH.

Whereas in HDFC Bank 14% of respondents were up to SSLC, 24% of PUC, 50% of graduate and 12% of post graduates.

There were 48% of employees and 14% of businessmen, 28% of professional (doctor, engineers, charted accountants, investment consultants, insurance agents etc.) and 10% of students in SBH bank. Whereas in 20% of employees and 22% of businessmen, 52% of professional (doctor, engineers, charted accountants, investment consultants, insurance agents etc.) and 06% of others. There were 40% of Up to 05 lakh income and 30% of 06 to 10 lakh income, 18% of 11 to 15 lakh income and 12% of 15 and above lakh income in SBH bank. Whereas in HDFC bank, 16% of Up to 05 lakh income and 22% of 06 to 10 lakh income, 28% of 11 to 15 lakh income and 34% of 15 and above lakh income.

All these IT enabled banking services are very good and more useful to businessmen professionals and employees in particular and others in general. When more number of businessmen and professionals are having their account in HDFC bank means its e-banking services are so good than SBH bank.

Table-02 Opinions of customers about awareness of IT enabled banking services:

H1: There is no significant relation between Age, Education, Occupation & Income of the customers and awareness of technology enabled banking services.

Awareness of IT enabled services and:	ANOVA		Chi-Square	
	SBH	HDFC	SBH	HDFC
Age of the respondents	Value = 14.881 Df = 3/46 Sign. = 0.00	Value = 4.148 Df = 3/46 Sign. = 0.003	Value = 23.813 Df = 06 Sign. = 0.001	Value = 15.926 Df = 06 Sign. = 0.014
Education of the respondents	Value = 6.229 Df = 3/46 Sign. = 0.004	Value = 7.894 Df = 3/46 Sign. =0.001	Value = 13.545 Df = 06 Sign. =0.035	Value = 15.156 Df = 06 Sign. =0.019
Occupation of the respondents	Value = 6.007 Df = 3/46 Sign. =0.005	Value = 5.010 Df = 3/46 Sign. =0.011	Value = 17.576 Df = 06 Sign. =0.007	Value = 14.495 Df = 06 Sign. =0.025
Income of the respondents	Value = 0.597 Df = 3/46 Sign. =0.555	Value = 0.789 Df = 3/46 Sign. =0.460	Value = 5.869 Df = 06 Sign. =0.438	Value = 10.528 Df = 06 Sign. =0.104

Table 02 reveals the opinion of customers regarding awareness about IT enabled banking services. ANOVA and Chi-Square test was performed to test hypotheses Ho, F =14.881, 6.229, 6.007 and 0.597 at df = 3/46 sig. = 0.000, 0.004, 0.005 and 0.555 in SBH Bank. Whereas in HDFC bank ANOVA test showed that Ho, F =4.148, 7.894, 5.010 and 0.789 at df = 3/46 sig. =0.003, 0.001, 0.011 and 0.460. Chi-Square calculated values are Ho, F =23.813, 13.545, 17.576 and 5.869 at df = 3/46 sig. =0.001, 0.035, 0.007 and 0.438 in SBH Bank. Whereas in HDFC bank Chi-Square test showed that Ho, F =15.926, 15.156, 14.495 and 10.528 at df = 06, sig. =0.014, 0.019, 0.025 and 0.104

In both the banks as per as concern with the Age, Education and Occupation, the calculated value of significance of IT enabled banking services awareness are less than the 0.05 (standard level of

significance), so the null hypothesis is rejected and accordingly alternative hypothesis i.e. there is a relation in between Age, Education & Occupation of the customers and awareness of IT enabled banking services is accepted. whereas in case of income of customers' relation and awareness of IT enabled banking services calculated value of both the banks are more than the 0.05 (standard level of significance), so the null hypothesis is accepted and accordingly alternative hypothesis i.e. there is a relation in between Age, Education & Occupation of the customers and awareness of IT enabled banking services is rejected.

Ultimately it can be stated that both banks are providing good ATM and DCM machine, SMS, Mobile, Online, Tele-banking, RTGS, NEFT and Green banking services which are treated as good predictors of customers' satisfaction in bank. So the awareness about all these IT enabled banking services are required by the businessmen, professionals and employees in particular and others in general. It can be inferred that, awareness about the IT enabled banking services is to be provided by the banks to their customers based on their Age, Education and Occupation. Because it is the much needed task that should be executed by the banker to stay and sustain in the competitive market era.

Table-03Opinions of customers about the operations of IT enabled banking services:

Ho: There is no significant relation between Age, Education, Occupation & Income of the customers and operations of IT enabled banking services.

Operation of IT enabled services and:	ANOVA		Chi-Square	
	SBH	HDFC	SBH	HDFC
Age of the respondents	Value = 18.641 Df = 3/46 Sign. = 0.000	Value = 6.289 Df = 3/46 Sign. = 0.004	Value = 26.309 Df = 06 Sign. = 0.000	Value = 19.241 Df = 06 Sign. = 0.004
Education of the respondents	Value = 6.722 Df = 3/46 Sign. =0.003	Value = 6.262 Df = 3/46 Sign. =0.004	Value = 14.237 Df = 06 Sign. =0.027	Value = 16.046 Df = 06 Sign. =0.014
Occupation of the respondents	Value = 5.657 Df = 3/46 Sign. =0.006	Value = 3.468 Df = 3/46 Sign. =0.039	Value = 15.942 Df = 06 Sign. =0.014	Value = 16.340 Df = 06 Sign. =0.012
Income of the respondents	Value = 2.213 Df = 3/46 Sign. =0.121	Value = 2.900 Df = 3/46 Sign. =0.065	Value = 12.036 Df = 06 Sign. =0.061	Value = 11.413 Df = 06 Sign. =0.076

Table 03 reveals the opinion of customers regarding operation about IT enabled banking services. ANOVA and Chi-Square test was performed to test hypotheses Ho, F =18.641, 6.722, 5.657 and 2.213 at df = 3/46 sig. = 0.000, 0.003, 0.006 and 0.121 in SBH Bank. Whereas in HDFC bank ANOVA test showed that Ho, F =6.289, 6.262, 3.468 and 2.900 at df = 3/46 sig. =0.004, 0.004, 0.039 and 0.065. Chi-Square calculated values are Ho, F =26.309, 14.237, 15.942 and 12.036 at df = 3/46 sig. =0.001, 0.027, 0.014 and 0.061 in SBH Bank. Whereas in HDFC bank Chi-Square test showed that Ho, F =19.241, 16.046, 16.340 and 11.413 at df = 06, sig. =0.004, 0.014, 0.012 and 0.076

In both the banks as per as concern with the Age, Education and Occupation, the calculated value of significance of IT enabled banking services operation are less than the 0.05 (standard level of significance), so the null hypothesis is rejected and accordingly alternative hypothesis i.e. there is a relation in between Age, Education & Occupation of the customers and operation of IT enabled banking services is accepted. whereas in case of income of customers' relation and operation of IT enabled banking services calculated value of both the banks are more than the 0.05 (standard level of significance), so the null hypothesis is accepted and accordingly alternative hypothesis i.e. there is a relation in between Age, Education & Occupation of the customers and operation of IT enabled banking services is rejected.

Ultimately it can be stated that both banks' customers have full knowledge about the IT enabled banking service operation, because operations are very easy and server and networking of the banks are regularly up-kept and they are secured without any hazard which are treated as good predictors of customers' satisfaction in bank. It can be inferred that, operation of IT enabled banking services and Age, Education and Occupation of the customers are having direct relation. For that, the banker has to have such software which is having very easy accessibility to stay and be in the competitive market for a longer time.

Table-04 Opinion of customers about the challenges of IT enabled banking services:

Ho: There is no significant relation between Age, Education, Occupation & Income of the respondents and challenges of IT enabled banking services.

Challenges of IT enabled services and:	ANOVA		Chi-Square	
	SBH	HDFC	SBH	HDFC
Age of the respondents	Value = 8.433 Df = 3/46 Sign. = 0.001	Value = 6.494 Df = 3/46 Sign. = 0.003	Value = 20.205 Df = 06 Sign. = 0.003	Value = 17.686 Df = 06 Sign. = 0.007
Education of the respondents	Value = 1.154 Df = 3/46 Sign. =0.324	Value = 14.914 Df = 3/46 Sign. =0.000	Value = 5.751 Df = 06 Sign. =0.452	Value = 35.268 Df = 06 Sign. =0.000
Occupation of the respondents	Value = 6.722 Df = 3/46 Sign. =0.003	Value = 5.738 Df = 3/46 Sign. =0.006	Value = 13.296 Df = 06 Sign. =0.039	Value = 34.301 Df = 06 Sign. =0.000
Income of the respondents	Value = 1.663 Df = 3/46 Sign. =0.200	Value = 1.540 Df = 3/46 Sign. =0.225	Value = 5.753 Df = 06 Sign. =0.451	Value = 4.272 Df = 06 Sign. =0.580

Table 04 reveals the opinion of customers regarding operation about IT enabled banking services. ANOVA and Chi-Square test was performed to test hypotheses Ho, F =8.433, 1.154, 6.722 and 1.663 at df = 3/46 sig. = 0.001, 0.324, 0.003 and 0.200 in SBH Bank. Whereas in HDFC bank ANOVA test showed that Ho, F =6.494, 14.914, 5.738 and 1.540 at df = 3/46 sig. =0.003, 0.000, 0.006 and 0.225. Chi-Square calculated values are Ho, F =20.205, 5.751, 13.296 and 5.753 at df = 3/46 sig. =0.003, 0.452, 0.039 and 0.451 in SBH Bank. Whereas in HDFC bank Chi-Square test showed that Ho, F =17.686, 35.268, 34.301 and 4.272 at df = 06, sig. =0.007, 0.000, 0.000 and 0.580.

In both the banks as per as concern with the Age & Occupation of the customers, the calculated

value of significance of IT enabled banking services challenges are less than the 0.05 (standard level of significance), so the null hypothesis is rejected and accordingly alternative hypothesis i.e. there is a relation in between Age & Occupation of the customers and challenges of IT enabled banking services is accepted. whereas in case of education of customers calculated value of SBH bank is more than the 0.05 (standard level of significance), so the null hypothesis is accepted and accordingly alternative hypothesis i.e. there is a relation in between Education of the customers and challenges of IT enabled banking services is rejected. whereas the relation between education of customers and challenges of IT enabled banking services calculated value of HDFC bank is less than the 0.05 (standard level of significance), so the null hypothesis is rejected and accordingly alternative hypothesis i.e. there is a relation in between Education of the customers and challenges of IT enabled banking services is rejected.

whereas in case of income of customers' relation and operation of IT enabled banking services calculated value of both the banks are more than the 0.05 (standard level of significance), so the null hypothesis is accepted and accordingly alternative hypothesis i.e. there is a relation in between Age, Education & Occupation of the customers and operation of IT enabled banking services is rejected. Ultimately the inference may be drawn that, there are many challenges in the IT enabled banking services which are having the direct relation with the Age and Occupation of the customers. So they must be very careful while molding the services, fixing the services charges, levying the interest, selecting and adopting the software, security for the services, managing the risks and so on.

CONCLUSION:

The banking industry has been a leader in the e-business world in recent years. The technological advancement in banking revolution has fundamentally changed the business of banking by scaling borders and bringing about new opportunities. The new business environment thus puts a premium on creativity and innovation more than ever before. Based on the outcome of this study, it is evident that the more customers will continue to weigh the benefits of IT enabled banking services against issues related to trust, security and privacy, as well as the ability to access personal services directly from their bank. In this regard law must be tightened as per as concern with the cyber crime, security and user privacy. In this context in the banks, there must be enough ICT professionals, well trained; who will manage the IT enabled banking system in order to ensure its smooth running on a continuous basis.

Furthermore, banks need to increase the confidence of their customers as well as develop their skills and knowledge to get awareness and operation of technological advanced banking services. Managers could employ the use of video presentations at bank branches and on television to showcase the user-friendliness of such services. This will help customers to be more familiar with the IT enabled banking services. Ideally, technological advancement banking services should overcome from all the challenges and will be more effective, vibrant than ever before.

REFERENCES:

1.Avasthi, G.P. and Sharma, M. (2000-01). 'Information Technology in Banking:Challenges for Regulators'. Prajanan.XXIX(4). 17.

2. Halperin, K. (2001) 'Balancing act', Company Business and Marketing, February.

3. Hitt, L.M. and Frei, F.X. (2002) 'Do better customers utilize electronic distributionchannels? Thecase of PC banking', Management Science, Vol. 48, No. 6, pp.732–748.

4..Rao, S. (2004) 'Building inter-firm relationships online: perspectives from the Australianinternet banking industry', International Journal of Internet Marketing and Advertising, Vol.1, No. 4,pp.371–387.

5. Kaynak, E. and Harcar, T.D. (2005) 'Consumer value creation in mobile banking services',International Journal of Technology Marketing, Vol. 1, No. 1, pp.62–78.

6. Lyman, T.R., Pickens M. &Porteous D. (2008), "Regulating Transformational Branchless Banking: MobilePhones and Other Technology to Increase Access to Finance", In: Focus Note 43. Consultative Group to Assistthe Poor (CGAP), Washington, DC.

7. Sharma, Prerna& Singh, Preeti (2009), "Users' perception about mobile banking- with special reference toIndore & around", Review of Business & Technology Research, Vol. 2, 1, pp. 1-5

8. Pooja Malhotra, Balwinder Singh, "An analysis of Internet banking offerings and its determinants in India", Emerald 20, (2010)